

Title (en)

OXO-AZAHETEROCYCLIC DERIVATIVES FOR USE IN THE TREATMENT OF MALARIA

Title (de)

OXO-AZAHETEROZYKLISCHE DERIVATE ZUR VERWENDUNG BEI DER BEHANDLUNG VON MALARIA

Title (fr)

DÉRIVÉS OXO-AZAHÉTÉROCYCLIQUES UTILISÉS DANS LE TRAITEMENT DU PALUDISME

Publication

**EP 4257133 A1 20231011 (EN)**

Application

**EP 22305461 A 20220405**

Priority

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Abstract (en)

The present invention is in the field of therapeutic drugs to treat malaria. In particular, the invention provides oxo-azaheterocyclic derivatives for use in the treatment of malaria, for example drug-resistant malaria.

IPC 8 full level

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5. **A61K 31/5513** + **A61K 2300/00**

Citation (applicant)

- EP 1686119 A1 20060802 - SMITHKLINE BEECHAM PLC [GB]
- EP 1263740 A1 20021211 - SMITHKLINE BEECHAM PLC [GB]
- T.W. GREENEP. G. M. WUTS: "Protective Groups in Organic Chemistry", 1973, WILEY-VCH PUBLISHERS
- WITKOWSKI ET AL., LANCET INFECT. DIS., vol. 13, 2013, pages 1043 - 1049
- BERGSDORF ET AL., METHODS ENZYMOL., vol. 610, 2018, pages 135 - 165
- IZUMIYAMA ET AL., EXP. PARASITOL., vol. 121, 2009, pages 144 - 150
- ISHINO ET AL., MOL. MICROBIOL., vol. 59, 2006, pages 1175 - 1184
- FISHER ET AL., AM. J. PHYSIOL. - LUNG CELL. MOL. PHYSIOL., vol. 267, 1994

Citation (search report)

- [IY] WO 2009149188 A1 20091210 - INTERMUNE INC [US], et al
- [IY] WO 2015171957 A1 20151112 - KAUSHANSKY ALEXIS [US], et al
- [Y] WO 2020028977 A1 20200213 - KARICI DIAGNOSTICS INC [CA]
- [E] WO 2022106892 A1 20220527 - INST DE MEDICINA MOLECULAR [PT]
- [XYI] MUNDRA SOURABH ET AL: "A novel class of Plasmodial ClpP protease inhibitors as potential antimalarial agents", BIOORGANIC & MEDICAL CHEMISTRY, vol. 25, no. 20, 5 September 2017 (2017-09-05), AMSTERDAM, NL, pages 5662 - 5677, XP055961921, ISSN: 0968-0896, Retrieved from the Internet <URL:https://www.sciencedirect.com/science/article/pii/S0968089617313408?via%3Dihub> DOI: 10.1016/j.bmc.2017.08.049
- [XYI] ZHU JIN ET AL: "2-(3,4-Dihydro-4-Oxothieno[2,3-d]pyrimidin-2-ylthio) Acetamides as a New Class of Falcipain-2 Inhibitors. 3. Design, Synthesis and Biological Evaluation", MOLECULES, vol. 14, no. 2, 16 February 2009 (2009-02-16), pages 785 - 797, XP055963076, Retrieved from the Internet <URL:https://www.mdpi.com/1420-3049/14/2/785> DOI: 10.3390/molecules14020785
- [IY] BHATNAGAR SUYASH ET AL: "Diverse Chemical Compounds Target Plasmodium falciparum Plasma Membrane Lipid Homeostasis", ACS INFECTIOUS DISEASES, vol. 5, no. 4, 14 January 2019 (2019-01-14), US, pages 550 - 558, XP055963078, ISSN: 2373-8227, Retrieved from the Internet <URL:https://pubs.acs.org/doi/10.1021/acsinfecdis.8b00277> DOI: 10.1021/acsinfecdis.8b00277
- [IY] H. CELIK ET AL: "Identification of Novel Ezrin Inhibitors Targeting Metastatic Osteosarcoma by Screening Open Access Malaria Box", MOLECULAR CANCER THERAPEUTICS, vol. 14, no. 11, 10 September 2015 (2015-09-10), US, pages 2497 - 2507, XP055392330, ISSN: 1535-7163, DOI: 10.1158/1535-7163.MCT-15-0511
- [IY] RUDA GIAN FILIPPO ET AL: "Modified 5'-Trityl Nucleosides as Inhibitors of Plasmodium falciparum dUTPase", CHEMMEDCHEM COMMUNICATIONS, vol. 6, no. 2, 18 January 2011 (2011-01-18), DE, pages 309 - 320, XP055963047, ISSN: 1860-7179, Retrieved from the Internet <URL:https://chemistry-europe.onlinelibrary.wiley.com/doi/epdf/10.1002/cmdc.201000445> DOI: 10.1002/cmdc.201000445
- [IY] ANSELL KEITH H. ET AL: "Biochemical and Antiparasitic Properties of Inhibitors of the Plasmodium falciparum Calcium-Dependent Protein Kinase PfCDPK1", ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, vol. 58, no. 10, 1 October 2014 (2014-10-01), US, pages 6032 - 6043, XP055963063, ISSN: 0066-4804, Retrieved from the Internet <URL:https://journals.asm.org/doi/pdf/10.1128/AAC.02959-14> DOI: 10.1128/AAC.02959-14
- [IY] INSUASTY DANIEL ET AL: "A Schmidt rearrangement-mediated synthesis of novel tetrahydro-benzo[1,4]diazepin-5-ones as potential anticancer and antiprotozoal agents", EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol. 141, 2017, pages 567 - 583, XP085259427, ISSN: 0223-5234, DOI: 10.1016/J.EJMECH.2017.10.024
- [T] WAGNER MATTHIAS PAULUS ET AL: "Human peroxiredoxin 6 is essential for malaria parasites and provides a host-based drug target", CELL REPORTS, vol. 39, no. 11, 1 June 2022 (2022-06-01), US, pages 110923, XP055962740, ISSN: 2211-1247, Retrieved from the Internet <URL:https://www.sciencedirect.com/science/article/pii/S2211124722007008?via%3Dihub> DOI: 10.1016/j.celrep.2022.110923

Designated contracting state (EPC)

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BA ME

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